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16368  
PATENT

Attorney Docket No. UM-06962

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Chung Owyang  
Serial No.: 10/087,345  
Filed: 03/01/02  
Entitled: Orphanin FQ Receptor Nucleic Acids

Group No.: 1636  
Examiner: Sullivan

INFORMATION DISCLOSURE  
STATEMENT TRANSMITTAL

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)(1)(i)(A)

I hereby certify that this correspondence (along with any referred to as being attached or enclosed) is, on the date shown below, being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: February 27, 2004

By

Mary Ellen Waite

Sir or Madam:

Enclosed please find an Information Disclosure Statement and Form PTO-1449, including copies of the references contained thereon, for filing in the U.S. Patent and Trademark Office.

A check for \$180.00 is also enclosed pursuant to 37 C.F.R. § 1.17(p) for filing this Information Disclosure Statement after three months as set forth in 37 C.F.R. § 1.97(c).

The Commissioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. 08-1290. An originally executed duplicate of this transmittal is enclosed for this purpose.

Dated: February 27, 2004

Tanya A. Arenson  
Registration No. 47,391

03/02/2004 SSANDARA 00000024 10087345

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UM-06962  
February 27, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Owyang *et al.*

Serial No.:

Group No.:

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Examiner:

Entitled:

**ORPHANIN FQ RECEPTOR NUCLEIC  
ACIDS**

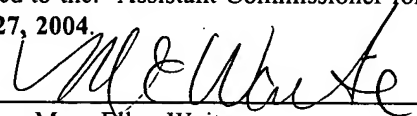
**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**CERTIFICATE OF MAILING UNDER 37 CFR § 1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231, on February 27, 2004.

By:

  
Mary Ellen Waite

Sir or Madam:

The citations listed below, copies attached, may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application.

The following printed publications are referred to in the body of the specification:

- 4,683,195;
- 4,683,202;
- 4,965,188;
- 4,946,778;
- 6,172,075;
- 5,976,807;

- 5,821,219;
- 4,873,191;
- 6,074,859;
- 5,976,796;
- 5,674,713;
- 5,223,409;
- 5,198,346;
- 5,096,815;
- 5,837,458;
- 5,830,721;
- 5,811,238;
- 5,733,731;
- 4,657,760;
- 5,206,344;
- 5,225,212;
- 6,080,912;
- 5,614,396;
- WO 84/03564;
- WO 90/08832;
- PCT/US90/02545;
- WO 93/03367;
- Brownstein, Proc. Natl. Acad. Sci. USA 90:5391 [1993];
- DiChara and North, Trends in Pharmacol. Sci. 13:185 [1992];
- McKnight and Rees, Neurotransmissions 7:1 [1991]. This reference is not being supplied at this time, but if the Examiner requests it will be sent at that time.
- Wang et al., FEBS Lett. 348:75 [1994];
- Bunzow et al., FEBS Lett. 347:284 [1994];

- Darland et al., Trends Neurosci. 21:215 [1998];
- Mollereau et al., FEBS Lett. 341:33 [1994];
- Fukuda et al., FEBS Lett. 343:42 [1994];
- Chen et al., FEBS Lett. 347:279 [1994];
- Bunzow et al., FEBS Lett. 347:284 [1994];
- Wick et al., Brain Res. Mol. Brain Res. 27:37 [1994];
- Lachowicz et al., J. Neurochem. 64:34 [1995];
- Nishi et al., Biochem. Biophys. Res. Commun. 205:1353 [1994];
- Pan et al., Regul. Pept. 54:217 [1994];
- Pan et al., Mol. Pharmacol. 47:1180 [1995];
- Pan et al., Gene 171:255 [1996];
- Reinscheid et al., Science 270:792 [1995];
- Meunier et al., Nature 377:532 [1995];
- Zhang et al., Brain Res. 772:102 [1997];
- Yazdani et al., Gastroenterology 116:108 [1999];
- Osinski et al., Eur. J. Pharmacol. 365:281 [1999];
- Rossi et al., J. Pharmacol. Exp. Ther. 282:858 [1997];
- Rossi et al., Brain Res. 792:327 [1998];
- Noda et al., J. Biol. Chem. 273:18047 [1998];
- Mathis et al., Biochem. Biophys. Res. Commun. 230:462 [1997];
- Pan et al., FEBS Lett. 395:207 [1996];
- Yamamoto and Nozaki-Taguchi, Anesthesiology 87:1145 [1997];
- Blandizzi et al., Biochem. Biophys. Res. Commun. 202:947 [1994];
- Mount, Nucleic Acids Res. 10:459 [1982];
- Muraoka et al., Am. J. Physiol. 271:G1101 [1996];
- Song et al., Proc. Natl. Acad. Sci. U S A. 90:9085 [1993]
- Calo et al., Br. J. Pharmacol 129:1261 [2000];
- Jenck et al., PNAS 97:4938 [2000]; and


- Koster et al., PNAS 96:10444.

Applicants have become aware of the following printed publications which may be material to the examination of this application:

- U.S. Patent 5,837,809;
- U.S. Patent 5,929,035;
- Allen et al., J. Neurosci., 19:2152 [1999];
- Meng et al., J. Biol. Chem., 275:21939 [2000];
- Takahashi et al., Gastroenterology 119:1054 [2000] (abstract only);
- Takahashi et al., Gastroenterology 119:71 [2000] (abstract only);
- Hashimoto et al., Neurosci. Lett. 278:109 [2000] (abstract only);
- Hom et al., Synapse 34:187 [1999] (abstract only);
- Goda and Mutneja, Curr. Biol., 8:R889 [1998] (abstract only);
- Guerrini et al., J. Med. Chem., 43:2805 [2000] (abstract only);
- Chiou, J. Biomed Sci. 7:232 [2000] (abstract only);
- Berger et al., J. Pharmacol. Exp. Ther. 294:428 [2000] (abstract only);

This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

Dated: February 27, 2004

  
\_\_\_\_\_  
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FORM PTO-1449  
(Modified)U.S. Department of Commerce  
Patent and Trademark Office

Attorney Docket No.: UM-06962

Serial No.: 10/087,345

INFORMATION DISCLOSURE STATEMENT BY APPLICANT  
(Several Sheets If Necessary)

Applicant: Chung Owyang

(37 CFR § 1.98(b))

Filing Date: 03/01/02

Group Art Unit:

## U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
	1	4,683,195	07/28/87	Mullis <i>et al.</i>	435	6	02/07/86
	2	4,683,202	07/28/87	Mullis	435	91	10/25/85
	3	4,965,188	10/23/90	Mullis <i>et al.</i>	435	6	06/17/87
	4	4,946,778	08/07/90	Ladner <i>et al.</i>	435	69.6	01/19/89
	5	6,172,075	01/09/01	Adam <i>et al.</i>	514	278	06/11/99
	6	5,976,807	11/02/99	Horlick <i>et al.</i>	435	6	08/06/98
	7	5,821,219	10/13/09	Grandy <i>et al.</i>	514	2	11/03/95
	8	4,873,191	10/10/89	Wagner <i>et al.</i>	435	172.3	08/18/86
	9	6,074,859	06/13/00	Hirokawa <i>et al.</i>	435	189	07/08/98
	10	5,976,796	11/02/99	Szalay <i>et al.</i>	435	6	12/23/96
	11	5,674,713	10/07/97	McElroy <i>et al.</i>	435	69.7	06/02/95
	12	5,223,409	06/29/93	Ladner <i>et al.</i>	435	69.7	03/01/91
	13	5,198,346	03/30/93	Ladner <i>et al.</i>	435	69.1	07/26/90
	14	5,096,815	03/17/92	Ladner <i>et al.</i>	435	69.1	01/06/89
	15	5,837,458	11/17/98	Minshull <i>et al.</i>	435	6	05/20/96
	16	5,830,721	11/03/98	Stemmer <i>et al.</i>	435	172.1	03/04/96
	17	5,811,238	09/22/98	Stemmer <i>et al.</i>	435	6	11/30/95
	18	5,733,731	03/31/98	Schatz <i>et al.</i>	435	6	10/26/95
	19	4,657,760	04/14/87	Kung <i>et al.</i>	424	85	03/04/85
	20	5,206,344	04/27/93	Katre <i>et al.</i>	530	351	01/11/88
	21	5,225,212	07/06/93	Martin <i>et al.</i>	424	450	12/10/90
	22	6,080,912	06/27/00	Bremel <i>et al.</i>	800	23	03/20/97
	23	5,614,396	03/25/97	Bradley <i>et al.</i>	435	172.3	02/22/94
	24	5,837,809	11/17/98	Grandy <i>et al.</i>	530	326	08/11/95
	25	5,929,035	07/27/99	Owyang	514	13	04/14/98

## FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation	
							Yes	No
	26	WO 84/03564		PCT				
	27	WO 90/08832		PCT				
	28	PCT/US90/02545		PCT				
	29	WO 93/03367		PCT				

Examiner:

Date Considered:

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449  
(Modified)U.S. Department of Commerce  
Patent and Trademark Office

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Applicant: Chung Owyang

(37 CFR § 1.98(b))

Filing Date: 03/01/02

Group Art Unit:

## OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

30	Brownstein, Proc. Natl. Acad. Sci. USA 90:5391 [1993]
31	DiChara and North, Trends in Pharmacol. Sci. 13:185 [1992]
32	McKnight and Rees, Neurotransmissions 7:1 [1991]. This reference is not being supplied at this time but if the Examiner requests it will be sent in at that time.
33	Wang et al., FEBS Lett. 348:75 [1994];
34	Bunzow et al., FEBS Lett. 347:284 [1994];
35	Darland et al., Trends Neurosci. 21:215 [1998];
36	Mollereau et al., FEBS Lett. 341:33 [1994];
37	Fukuda et al., FEBS Lett. 343:42 [1994]
38	Chen et al., FEBS Lett. 347:279 [1994];
39	Bunzow et al., FEBS Lett. 347:284 [1994];
40	Wick et al., Brain Res. Mol. Brain Res. 27:37 [1994];
41	Lachowicz et al., J. Neurochem. 64:34 [1995];
42	Nishi et al., Biochem. Biophys. Res. Commun. 205:1353 [1994]
43	Pan et al., Regul. Pept. 54:217 [1994]
44	Pan et al., Mol. Pharmacol. 47:1180 [1995];
45	Pan et al., Gene 171:255 [1996];
46	Reinscheid et al., Science 270:792 [1995];
47	Meunier et al., Nature 377:532 [1995];
48	Zhang et al., Brain Res. 772:102 [1997]
49	Yazdani et al., Gastroenterology 116:108 [1999];
50	Osinski et al., Eur. J. Pharmacol. 365:281 [1999];
51	Rossi et al., J. Pharmacol. Exp. Ther. 282:858 [1997];
52	Rossi et al., Brain Res. 792:327 [1998];
53	Noda et al., J. Biol. Chem. 273:18047 [1998]
54	Pan et al., FEBS Lett. 395:207 [1996];
55	Mathis et al., Biochem. Biophys. Res. Commun. 230:462 [1997];
56	Yamamoto and Nozaki-Taguchi, Anesthesiology 87:1145 [1997];
57	Blandizzi et al., Biochem. Biophys. Res. Commun. 202:947 [1994]
58	Mount, Nucleic Acids Res. 10:459 [1982]
59	Muraoka et al., Am. J. Physiol. 271:G1101 [1996];

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